

WHAT IS CLAIMED IS:

1. A solid-state imaging apparatus comprising:  
an AF photoelectric converting element; and an  
AE photoelectric converting element for executing a  
5 photometric process of a photographing region, which  
are integrated on a same semiconductor substrate,  
wherein a spectral sensitivity characteristic  
of said AF photoelectric converting element is  
different from a spectral sensitivity characteristic  
10 of said AE photoelectric converting element.
  
2. The solid-state imaging apparatus according  
to claim 1, wherein a peak wavelength of the spectral  
sensitivity characteristic of said AF photoelectric  
15 converting element is longer than a peak wavelength  
of the spectral sensitivity characteristic of said AE  
photoelectric converting element.
  
3. The solid-state imaging apparatus according  
20 to claim 1, wherein a peak wavelength of the spectral  
sensitivity characteristic of said AE photoelectric  
converting element is in the vicinity of 500 nm, and  
a peak wavelength of the spectral sensitivity  
characteristic of said AF photoelectric converting  
25 element is equal to or larger than 650 nm.
  
4. The solid-state imaging apparatus according

to claim 1, wherein said AF photoelectric converting element and said AE photoelectric converting element are formed in well regions having impurity concentrations different from each other.

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5. The solid-state imaging apparatus according to claim 4, wherein the impurity concentration of the well region where said AF photoelectric converting element is formed, is thinner than the impurity concentration of the well region where said AE photoelectric converting element is formed.

10 6. The solid-state imaging apparatus according to claim 5, wherein a conductivity of the impurity of the well region where said AF photoelectric converting element is formed, is the same as a conductivity of the impurity of the well region where said AE photoelectric converting element is formed.

15 20 7. The solid-state imaging apparatus according to claim 1, wherein the region formed with a photodiode defined as said AF photoelectric converting element and the region formed with a photodiode defined as said AE photoelectric converting element, are different from each other in 25 their depths in a light incident direction.

8. The solid-state imaging apparatus according to claim 7, wherein the depth of the region formed with said photodiode as said AF photoelectric converting element, is deeper than the depth of the 5 region formed with said photodiode as said AE photoelectric converting element.

9. The solid-state imaging apparatus according to claim 1, wherein said AF photoelectric converting 10 element is provided in an epitaxial layer, and wherein said AE photoelectric converting element is provided in a well having an opposite conductivity type that is provided within said epitaxial layer.

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10. The solid-state imaging apparatus according to claim 9, wherein said epitaxial layer is thinner in its impurity concentration than said well.

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11. A camera comprising:  
said solid-state imaging apparatus according to claim 1;

a detection region for detecting an image of an object;

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a lens for forming an image of the light on said detection region; and

a signal processing circuit for performing AF

control and AE control on the basis of signals  
transmitted from said solid-state imaging apparatus.